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Appl. No. 09/902,883**Remarks**

Reconsideration of this Application is respectfully requested.

Claims 1, 14, 21, and 23 are sought to be amended. Claims 1-24 are pending in the application, with 1, 14, 21, and 23 being the independent claims. No new matter has been entered by any amendments.

Based on the above amendment and following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 102(e) and 103(a)

Claims 1, 2, 8, 12, 14-16, and 19 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,501,869 to Athale ("Athale"). Claims 3-7, 9-11, 13, 17, 18, and 20-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Athale in view of U.S. Patent No. 5,945,898 to Judy et al. ("Judy"). Applicants respectfully request that the Examiner reconsider and withdraw the rejections.

Although Applicants disagree with the Examiner's rejection, Applicants have amended the claims in order to expedite prosecution.

Claims 1 and 14 recite at least a channel in a substrate between an optical input and optical output, along which an optical signal is confined to a predetermined path, and conducting the optical signal substantially parallel to the substrate within of the channel between the optical input and the optical output.

Claims 21 and 23 recite at least a waveguide in a substrate between an optical input and an optical output.

Athale in FIG. 19, which was asserted by the Examiner as teaching the invention, includes a NxM cross connect optical switch that must have a first optical switch 1990 (e.g., a first substrate) and a second optical switch 1992 (e.g., a second substrate) in order to direct a light beam 1910 from a respective input 1910-1930 to a respective output 1940-1980. The light is directed along three optical paths from the input to the

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output. A first path (e.g., from 1910 to 1911) that is perpendicular to a second path (e.g., from 1911 to 1941) that is perpendicular to a third path (e.g., from 1941 to 1940).

Therefore, FIG. 19 of Athale, which was asserted by the Examiner, fails to teach of a channel or a waveguide in a substrate between an optical input and an optical output, the channel or waveguide confining an optical signal to a predetermine light path, as recited in claims 1, 14, 21, and 23.

Athale in FIG. 9 shows light traveling parallel to a free space optical switch 900. However, light beams are not confined to predetermine paths in FIG. 9. Athale teaches of not wanting to use this configuration, and problems associate therewith.

Judy does not cure these deficiencies because it merely teaches of a conventional switching element.

Therefore, Athale and Judy, either alone or in an asserted obvious combination, fail to teach or suggest at least a channel or a waveguide in a substrate between an optical input and an optical output, the channel or waveguide confining an optical signal to a predetermine light path, as recited in claims 1, 14, 21, and 23. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejections. Claims 2-13, 15-20, 22, and 24 should also be found allowable, at least based on their respective dependencies from claims 1, 14, 21, and 23.

Conclusion

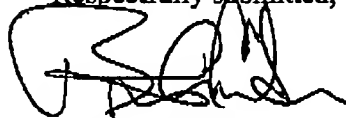
All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

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Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,



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